## REMARKS

Claims 22, 27, 29, 34, 35, and 40 have been amended, and claims 23, 26, 32, and 33 cancelled without prejudice. Claims 22, 24, 25, 27-31, and 34-52 are presently pending in the application. No new matter has been added and support for the amendments to the claims can be found in the specification and drawings. Independent system claim 22 has been amended to present the system from the standpoint of the base station and thus clarify the invention. Reconsideration of the rejections is respectfully requested in view of the amendments to the claims and the arguments for patentability presented hereinbelow.

Claim rejections under Section 35 U.S.C. § 103(a)

Claims 22-53 stand rejected under Section 103(a) as being unpatentable over Hamalainen et al. U.S. Patent No. 5,802,465 ("Hamalainen") in view of Blakeney, II et al. U.S. Patent No. 5,267,261 ("Blakeney").

Applicants respectfully traverse this rejection and submit that the combination of Hamalainen and Blakeney fails to teach or suggest the claimed invention. In accordance with an aspect of the present invention as called for in independent claim 22, each base station among a plurality of base stations connected to a telecommunications network is:

> configured for transmitting a paging message to a wireless station of a plurality of wireless stations associated with the base station when the base station receives a data packet for downlink transmission to the wireless station, the base station transmitting a pilot frequency signal corresponding to a downlink traffic channel when the base station transmits the data packet to the wireless station using the downlink traffic channel, and the pilot frequency signal being one of a plurality of pilot frequency signals respectively corresponding to the downlink traffic channels.

The Examiner cites Hamalainen for a base station in a radio telephone network that sends a paging message when a data packet is pending for downlink transmission to a wireless station (at Col. 8, lines 63-67), and admits that Hamalainen "does not disclose expressly the detecting of a plurality of pilot frequency signals at the wireless station or generating

a list of preferred traffic channels based on detected levels of the pilot frequency signals." The Examiner contends that Blakeney "discloses the monitoring of the pilot signals by the mobile stations (abstract), the generating of a list of preferred traffic channels (system resources) based on detected levels of the pilot frequency signals and transmitting the list to the base station" and that the combination of these would "improve Hamalainen with the mobile assisted soft handoff in a CDMA cellular communications system of Blakeney . . . for the purpose of selecting a channel with a better signal strength than the current one." (Office Action, pp. 2-3.)

It is respectfully submitted that this combination does not teach or suggest the claimed invention. Hamalainen teaches packet transfer between a base station and a mobile station over a packet data transfer channel established using parameters of a virtual channel. Specifically, after a base station sends a paging message to the mobile station, the mobile station sends a "channel request signal" to the base station on the common Random Access Channel RACH. (Col. 11, lines 50-55.) The base station receives this request and then informs the mobile station on which transfer channel the transfer of packets is to take place. (Col. 11, lines 18-21). This process is the same for downlinked and uplinked data packet delivery. (See Col. 11, lines 56-59.)

In accordance with an aspect of the present invention, the base station receives a list of preferred traffic channels generated by the mobile station in response to detection of a level of pilot frequency signals by the mobile station that are transmitted from the base station. The base station then assigns a downlink traffic channel. This is fundamentally different from the teachings in Hamalainen where the mobile station merely sends a "channel request signal" to the base station. The disclosure of Blakeney does not overcome the deficiencies of the teachings in Hamalainen.

Blakeney is directed to a method and system for *directing the handoff* of a mobile station between base stations in a CDMA system. (See Col. 3, lines 26-28.) In this regard, the mobile station monitors the signal strength of identifiable pilot signals transmitted from the base stations to determine when a pilot signal drops below a predetermined threshold such that a reporting message can be sent to the network so that a determination can be made at the system level whether to terminate communications between the mobile station and the base station whose pilot signal strength has dropped

below an acceptable level. (See Col. 3, line 45-Col. 4, line 14.) Blakeney does not teach monitoring, at a wireless station, pilot signals corresponding to downlink traffic channels, such that the mobile station can generate a list of acceptable channels for downlink delivery for the wireless station, nor does Blakeney suggest an expedient where the base station then assigns a downlink traffic channel based on the list received from the wireless station as claimed. The instant invention is adapted to provide bandwidth on demand and efficient reuse of a limited spectrum source, dynamic handling of diverse traffic having high peak rates, and high throughput and quality of service. The claimed arrangement is not for "selecting a channel with a better signal strength than the current one" as asserted by the Examiner (at Office Action, p. 3.) Furthermore, there is nothing in Blakeney directed to packet data delivery between a base station and a wireless station. Accordingly, it is respectfully submitted that the combination of Hamalainen and Blakely does not teach or suggest the invention of independent claim 22. Furthermore, Applicants submit that claims 24, 25, 27, 28, 29, 42 and 50, which stand rejected on the same grounds, are not taught or suggested by the combination of Hamalainen and Blakeney for the reasons set forth above. The Examiner's further rejection of dependent claims 30 and 52 on the ground of Official Notice, is respectfully traversed in view of the above argument distinguishing the claims from the combination of Hamalainen and Blakeney.

Claims 34-40 stand rejected under Section 103(a) as being unpatentable over Hamalainen et al. U.S. Patent No. 5,640,395 ("Hamalainen II") in view of Koohgoli et al. U.S. Patent No. 5,497,505 ("Koohgoli").

Applicants respectfully traverse this rejection and submit that the combination of Hamalainen and Koohgoli fails to teach or suggest the claimed invention. Claim 34 calls for, *inter alia*, "a pilot frequency signal scanner *for scanning a pilot frequency band in response to the paging message* for determining whether any downlink channels are available for downlink transmission of the data packet to the wireless station, the pilot frequency band having pilot frequency signals, *each pilot frequency signal corresponding to a downlink channel*; and a transmitter for *transmitting a message indicating available downlink channels* for downlink transmission of the data packet."

Hamalainen II discloses a system for transmitting packet data using TDMA. The patent specifically teaches a method of transmitting packet data using

uplink and downlink time slots comprising respective uplink and downlink TDMA frames, where the channels for packet delivery may be dynamically allocated such that a variable number of time slots in a cell are reserved for package usage, and the remaining slots reserved for circuit switched services. (See Col. 3, lines 27-30.) Hamalainen II neither discloses scanning a pilot frequency band where each pilot frequency signal corresponds to a downlink channel, in response to a paging message, nor transmitting a message indicating available downlink channels for downlink transmission of a data packet.

The Examiner cites to Koohgoli (at Col. 3, lines 24-30) for the teaching of "call set-up and spectrum sharing in radio communication on systems with dynamic channel allocation," where a "base station receives a list of preferred traffic channels" and contends that it would be obvious to "improve Hamalainen with the call set-up of Koohgoli [to] obtain the invention as specified in claim 34, for the purpose of dynamically assigning channels to mobile terminals." (Office Action, p. 4.)

Applicants respectfully submit that nothing in Koohgoli discloses or suggests scanning a pilot frequency band where each pilot frequency signal corresponds to a downlink channel, nor transmitting a message indicating available downlink channels for downlink transmission of a data packet. Accordingly, the combination of Hamalainen II and Koohgoli cannot render obvious Applicants' claimed invention because Koohgoli does not remedy the deficiencies in the Hamalainen II reference. Accordingly, it is respectfully submitted that claims 34-40 are patentable over the asserted combination of Hamalainen II and Koohgoli.

Claims 40, 41, 46-49 and 51 stand rejected under Section 103(a) as being unpatentable over Hamalainen I in view of Blakeney and Gunmar U.S. Pat. No. 5,507,007.

Applicants hereby reiterate the above argument distinguishing the combination of Hamalainen I and Blakeney from the claimed invention and submit that Gunmar does not remedy the deficiencies of Hamalainen or Blakeney, either taken alone or in combination. Gunmar discloses a method of determining the distribution of marginal traffic capacity for given cells wherein compatibility calculations are performed for each element or a selective selection of elements of an exclusion matrix so that a list

can be generated for alternative channels for each cell among a plurality of base stations. This has nothing to do with "receiving a list of preferred traffic channels for the wireless station for downlink transmission of the data packet" as claimed (e.g., claim 40).

In view of the above, Applicants respectfully submit that claims 22, 24, 25, 27-31, and 34-52 are patentable over the cited art, and allowance of these claims at an early date is solicited.

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. 1.16 or 1.17 to AT&T Corp. Account No. 01-2745. The Examiner is invited to contact the undersigned at (908) 532-1932 to discuss any matter concerning this application.

Respectfully submitted,
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By:

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